

**REMARKS**

In response to the Office Action mailed on July 20, 2006, Applicant has cancelled claims 20 and 35 without prejudice and has amended claim 21 to recite "wherein the flow-bypass means comprises an isolating valve operable for flushing and cleaning" and has amended claim 34 to replace "aluminium" with "aluminum." Support for the amendment to Claim 21 may be found, for example, at the end of Paragraph 53 of the specification.

Claims 21, 23-25, 28, 30-33, and 35 were rejected as being obvious in view of the Dumser and Morgan and/or Sueyoshi patents. Claim 22 was rejected as being obvious in view of the Dumser and Morgan and/or Sueyoshi patents further in view of DE 3101070. Claim 26 was rejected in view of the art applied to claim 21 further in view of the Longini patent, and claim 27 was rejected in view of the additional teachings of JP 9-210380.

Claim 29 was rejected in view of the art applied to claim 21 further in view of JP 2001-141249. Claim 34 was rejected in view of the art applied to claims 21-33 further in view of FR 2,560,343.

However, none of the cited prior art teaches or discloses the use of a flow-bypass means that comprises "an isolating valve operable for flushing and cleaning". Although the Morgan and Sueyoshi patents disclose a flow-bypass means, in neither case is the flow-bypass means an "isolating valve", nor is the valve "operable for flushing and cleaning".

In Morgan, the flow-bypass means is used during low demand situations, for example when only a single radiator is in use, so that a single-speed fluid pump can be used. In Sueyoshi, the flow-bypass means allows exhaust fluid that has

remained above a certain temperature to be passed back through the heat exchangers without being reheated, to lessen the burden on the pump and boiler. In contrast, an isolating valve is not intended to allow a variable flow of fluid (beyond being fully open or closed), and the flow-bypass means of the prior art clearly cannot be used for flushing and/or cleaning their respective systems.

Accordingly, Applicant submits that the invention of claim 21 is patentable over the teachings of the prior art whether alone or in combination. Claims 22-34 which depend directly or indirectly from claim 21 are likewise allowable with claim 21. Moreover, the additional features recited in claims 22-34 provide further combinations of elements with the invention recited in claim 21 which are neither anticipated by nor obvious in view of the cited prior art either alone or in combination with one another. There is simply no teaching which would lead one skilled in the art to combine the features of the prior art used to reject claims 22-34 with the prior art applied against claim 21.

For example, there is no teaching to lead one skilled in the art to combine the orifice of JP 9-210380 with a flow-rate measuring device. Likewise, there is no teaching to provide the valve V3 of JP 249 as a drain-off cock connected to a flow-bypass means.

A prompt and favorable reconsideration of the pending claims along with an indication of allowability is earnestly solicited.

Applicants invite the Examiner to contact Applicant's representative at the telephone number listed below if any issues remain in this matter, or if a discussion regarding any portion of the application is desired by the Examiner.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

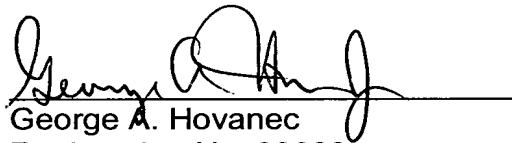
In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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